

EXHIBIT 1

UNITED STATES DISTRICT COURT

for the
District of Delaware

ADVANCED CLUSTER SYSTEMS, INC.,

Plaintiff

v.

NVIDIA CORPORATION, NVIDIA SINGAPORE
PTE. LTD., AND NVIDIA INTERNATIONAL, INC.,*Defendant*

Civil Action No. C.A. No. 1:19-cv-02032-MN-CJB

SUBPOENA TO TESTIFY AT A DEPOSITION IN A CIVIL ACTION

To: Jaswinder Singh c/o Cheryl Burgess, KNOBBE, MARTENS, OLSON & BEAR, LLP,
2040 Main Street, 14th Floor, Irvine, CA., 92614, (949) 760-0404*(Name of person to whom this subpoena is directed)*

☒ **Testimony:** **YOU ARE COMMANDED** to appear at the time, date, and place set forth below to testify at a deposition to be taken in this civil action. If you are an organization, you must designate one or more officers, directors, or managing agents, or designate other persons who consent to testify on your behalf about the following matters, or those set forth in an attachment:

See Attachment A

Place: DLA Piper LLP (US), 1251 Avenue of the Americas,
27th Floor, New York, NY 10020-1104, (212) 335-4500Date and Time:
July 25, 2022, 9 a.m. ET

The deposition will be recorded by this method: Stenographic and/or video

☒ **Production:** You, or your representatives, must also bring with you to the deposition the following documents, electronically stored information, or objects, and must permit inspection, copying, testing, or sampling of the material:

See Attachment A

Production Date and Time: July 20, 2022, 9 a.m. ET

Location: DLA Piper LLP (US), 1251 Avenue of the Americas, 27th Floor, New York, NY 10020-1104

The following provisions of Fed. R. Civ. P. 45 are attached – Rule 45(c), relating to the place of compliance; Rule 45(d), relating to your protection as a person subject to a subpoena; and Rule 45(e) and (g), relating to your duty to respond to this subpoena and the potential consequences of not doing so.

Date: July 6, 2022

CLERK OF COURT

OR

/s/ Brian A. Biggs

*Signature of Clerk or Deputy Clerk**Attorney's signature*

The name, address, e-mail address, and telephone number of the attorney representing *(name of party)* Defendants, NVIDIA CORPORATION, et al. , who issues or requests this subpoena, are:
Brian A. Biggs, DLA Piper LLP (US), 1201 North Market Street, Suite 2100, Wilmington, DE 19810,
brian.biggs@us.dlapiper.com, (302) 468-5700

Notice to the person who issues or requests this subpoena

If this subpoena commands the production of documents, electronically stored information, or tangible things before trial, a notice and a copy of the subpoena must be served on each party in this case before it is served on the person to whom it is directed. Fed. R. Civ. P. 45(a)(4).

Civil Action No. C.A. No. 1:19-cv-02032-MN-CJB

PROOF OF SERVICE

(This section should not be filed with the court unless required by Fed. R. Civ. P. 45.)

I received this subpoena for *(name of individual and title, if any)* Jaswinder Singh
on *(date)* _____ .

☐ I served the subpoena by delivering a copy to the named individual as follows: _____

_____ on *(date)* _____ ; or

☐ I returned the subpoena unexecuted because: _____

Unless the subpoena was issued on behalf of the United States, or one of its officers or agents, I have also
tendered to the witness the fees for one day's attendance, and the mileage allowed by law, in the amount of
\$ _____ .

My fees are \$ _____ for travel and \$ _____ for services, for a total of \$ 0.00 .

I declare under penalty of perjury that this information is true.

Date: _____

Server's signature

Printed name and title

Server's address

Additional information regarding attempted service, etc.:

Federal Rule of Civil Procedure 45 (c), (d), (e), and (g) (Effective 12/1/13)**(c) Place of Compliance.**

(1) For a Trial, Hearing, or Deposition. A subpoena may command a person to attend a trial, hearing, or deposition only as follows:

- (A) within 100 miles of where the person resides, is employed, or regularly transacts business in person; or
- (B) within the state where the person resides, is employed, or regularly transacts business in person, if the person
 - (i) is a party or a party's officer; or
 - (ii) is commanded to attend a trial and would not incur substantial expense.

(2) For Other Discovery. A subpoena may command:

- (A) production of documents, electronically stored information, or tangible things at a place within 100 miles of where the person resides, is employed, or regularly transacts business in person; and
- (B) inspection of premises at the premises to be inspected.

(d) Protecting a Person Subject to a Subpoena; Enforcement.

(1) Avoiding Undue Burden or Expense; Sanctions. A party or attorney responsible for issuing and serving a subpoena must take reasonable steps to avoid imposing undue burden or expense on a person subject to the subpoena. The court for the district where compliance is required must enforce this duty and impose an appropriate sanction—which may include lost earnings and reasonable attorney's fees—on a party or attorney who fails to comply.

(2) Command to Produce Materials or Permit Inspection.

(A) *Appearance Not Required.* A person commanded to produce documents, electronically stored information, or tangible things, or to permit the inspection of premises, need not appear in person at the place of production or inspection unless also commanded to appear for a deposition, hearing, or trial.

(B) *Objections.* A person commanded to produce documents or tangible things or to permit inspection may serve on the party or attorney designated in the subpoena a written objection to inspecting, copying, testing, or sampling any or all of the materials or to inspecting the premises—or to producing electronically stored information in the form or forms requested. The objection must be served before the earlier of the time specified for compliance or 14 days after the subpoena is served. If an objection is made, the following rules apply:

- (i) At any time, on notice to the commanded person, the serving party may move the court for the district where compliance is required for an order compelling production or inspection.
- (ii) These acts may be required only as directed in the order, and the order must protect a person who is neither a party nor a party's officer from significant expense resulting from compliance.

(3) Quashing or Modifying a Subpoena.

(A) *When Required.* On timely motion, the court for the district where compliance is required must quash or modify a subpoena that:

- (i) fails to allow a reasonable time to comply;
 - (ii) requires a person to comply beyond the geographical limits specified in Rule 45(c);
 - (iii) requires disclosure of privileged or other protected matter, if no exception or waiver applies; or
 - (iv) subjects a person to undue burden.
- (B) *When Permitted.* To protect a person subject to or affected by a subpoena, the court for the district where compliance is required may, on motion, quash or modify the subpoena if it requires:

(i) disclosing a trade secret or other confidential research, development, or commercial information; or

(ii) disclosing an unretained expert's opinion or information that does not describe specific occurrences in dispute and results from the expert's study that was not requested by a party.

(C) *Specifying Conditions as an Alternative.* In the circumstances described in Rule 45(d)(3)(B), the court may, instead of quashing or modifying a subpoena, order appearance or production under specified conditions if the serving party:

- (i) shows a substantial need for the testimony or material that cannot be otherwise met without undue hardship; and
- (ii) ensures that the subpoenaed person will be reasonably compensated.

(e) Duties in Responding to a Subpoena.

(1) Producing Documents or Electronically Stored Information. These procedures apply to producing documents or electronically stored information:

(A) *Documents.* A person responding to a subpoena to produce documents must produce them as they are kept in the ordinary course of business or must organize and label them to correspond to the categories in the demand.

(B) *Form for Producing Electronically Stored Information Not Specified.* If a subpoena does not specify a form for producing electronically stored information, the person responding must produce it in a form or forms in which it is ordinarily maintained or in a reasonably usable form or forms.

(C) *Electronically Stored Information Produced in Only One Form.* The person responding need not produce the same electronically stored information in more than one form.

(D) *Inaccessible Electronically Stored Information.* The person responding need not provide discovery of electronically stored information from sources that the person identifies as not reasonably accessible because of undue burden or cost. On motion to compel discovery or for a protective order, the person responding must show that the information is not reasonably accessible because of undue burden or cost. If that showing is made, the court may nonetheless order discovery from such sources if the requesting party shows good cause, considering the limitations of Rule 26(b)(2)(C). The court may specify conditions for the discovery.

(2) Claiming Privilege or Protection.

(A) *Information Withheld.* A person withholding subpoenaed information under a claim that it is privileged or subject to protection as trial-preparation material must:

- (i) expressly make the claim; and
- (ii) describe the nature of the withheld documents, communications, or tangible things in a manner that, without revealing information itself privileged or protected, will enable the parties to assess the claim.

(B) *Information Produced.* If information produced in response to a subpoena is subject to a claim of privilege or of protection as trial-preparation material, the person making the claim may notify any party that received the information of the claim and the basis for it. After being notified, a party must promptly return, sequester, or destroy the specified information and any copies it has; must not use or disclose the information until the claim is resolved; must take reasonable steps to retrieve the information if the party disclosed it before being notified; and may promptly present the information under seal to the court for the district where compliance is required for a determination of the claim. The person who produced the information must preserve the information until the claim is resolved.

(g) Contempt.

The court for the district where compliance is required—and also, after a motion is transferred, the issuing court—may hold in contempt a person who, having been served, fails without adequate excuse to obey the subpoena or an order related to it.

ATTACHMENT A

**IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF DELAWARE**

ADVANCED CLUSTER SYSTEMS, INC.,

Plaintiff,

v.

NVIDIA CORPORATION, NVIDIA
SINGAPORE PTE. LTD, AND NVIDIA
INTERNATIONAL, INC.

Defendant.

Civil Action No. 1:19-cv-02032-MN-CJB

**DEFENDANT NVIDIA CORPORATION, NVIDIA SINGAPORE PTE. LTD, AND
NVIDIA INTERNATIONAL, INC.'S SUBPOENA *DUCES TECUM* AND *AD
TESTIFICANDUM* TO JASWINDER SINGH**

Pursuant to Federal Rule of Civil Procedure 45:

YOU ARE HEREBY ORDERED to produce at the offices of DLA Piper LLP (US), 1251 Avenue of the Americas, 27th Floor, New York, NY 10020-1104, (212) 335-4500, within **fourteen (14)** calendar days after the receipt hereof, or at any other place and time mutually agreed upon, all of the documents and things in your possession, custody, or control that are listed and described in **Attachment A.1** hereto. Such production will be for the purpose of inspection and copying.

YOU ARE HEREBY FURTHER ORDERED to present yourself for purposes of your deposition upon oral examination on July 25, 2022 at 9 a.m. ET, at the offices of DLA Piper LLP (US), 1251 Avenue of the Americas, 27th Floor, New York, NY 10020-1104, (212) 335-4500 or at any other location and date mutually agreed upon.

The following definitions apply.

DEFINITIONS

1. “You” or “Your” means you, Jaswinder Singh, including, without limitation, any of your agents, representatives, and attorneys, and any other persons acting or purporting to act on your behalf.

2. The terms “Plaintiff” and “ACS” shall mean and include Advanced Cluster Systems, Inc., including, without limitation, all predecessors, successors, subsidiaries, divisions, parents and/or affiliates thereof, past or present, and all past or present officers or employees, including directors, agents, employees, inventors, researchers, scientists, consultants, accountants, attorneys, representatives, and any other person or entity acting on behalf of any of the foregoing.

3. “NVIDIA” mean and includes NVIDIA Corporation, NVIDIA Singapore Pte. Ltd., and NVIDIA International, Inc., including, without limitation, all predecessors, successors, subsidiaries, divisions, parents and/or affiliates thereof, past or present, and all past or present officers or employees, including directors, agents, employees, inventors, researchers, scientists, consultants, accountants, attorneys, representatives, and any other person or entity acting on behalf of any of the foregoing.

4. “Parallel Computer Architecture Textbook” means Parallel Computer Architecture: A Hardware/Software Approach by David E Culler and Jaswinder Pal Singh (1999).

5. As used herein, “Action,” “Litigation,” and “Case” refer to the above-captioned lawsuit filed on or about October 28, 2019, in the United States District Court for the District of Delaware, and any allegations, claims, and defenses therein.

6. As used herein, “Complaint” refers to Plaintiff’s First Amended Complaint for Patent Infringement filed in this Action on or about June 28, 2021, and any amendments thereto.

7. The term “’768 patent” or “Asserted Patent” shall mean U.S. Patent No. 10,333,768, entitled “Cluster Computing,” issued on June 25, 2019, as well as any reexamination or reissue certificate(s) issuing from the foregoing, any patent applications leading directly or indirectly to the foregoing (including without limitation all published and unpublished pending and abandoned applications, and all applications on which any claim of priority is based), and any application and/or patent related therefrom filed or issued outside of the United States.

8. “USPTO” shall mean the United States Patent and Trademark Office.

9. “Document” shall encompass the meaning and scope of that term as used in Federal Rule of Civil Procedure 34, and includes the terms “writings and recordings,” “photographs,” “originals,” and “duplicate” as defined in Federal Rule of Evidence 1001, and is used in its customarily broad sense to include, without limitation, the following items, whether printed, recorded, stored or saved electronically, microfilmed, or reproduced by any process, or written or produced by hand, and whether or not claimed to be privileged or confidential or personal: letters; memoranda; reports; records; agreements; working papers; communications (including intradepartmental and interdepartmental communications); correspondence; summaries or records of personal conversations; diaries; forecasts; statistical statements; graphs; laboratory or research reports and notebooks; charts; minutes or records of conferences; expressions or statements of policy; lists of persons attending meetings or conferences; reports of or summaries of interviews; reports of or summaries of investigations; opinions or reports of consultants; patent appraisals; opinions of counsel; reports of or summaries of either negotiations within or without the corporation or preparations for such; brochures; manuals; pamphlets; advertisements; circulars; press releases; drafts of any documents; memoranda; books; instruments; accounts; bills of sale; invoices; tapes; electronic communications, including but not limited to emails; telegraphic

communications and all other material of any tangible medium of expression; and original or preliminary notes. Any comment or notation appearing on any document, and not a part of the original text, is to be considered a separate “Document.”

10. The term “Source Code” shall mean any set of instructions, directives, commands, abstractions, expressions, or representations capable of being interpreted, compiled, or executed by a computer. It shall include but is not limited to any of the foregoing written in any of the following:

- a.** Command line interface languages including but not limited to DOS batch language, .bat (Windows batch file language), and shell scripting languages (for any Unix or Linux shell including but not limited to bash, ksh, csh, and zsh);
- b.** Compiled languages including but not limited to C, C++, Objective-C, COBOL, Delphi, Eiffel, Fortran, Java, Python, PHP, Visual Basic, and any language targeting a .NET CLR compiler (including but not limited to VB.NET and C#);
- c.** Interpreted and scripting languages including but not limited to Perl, Ruby, VBScript, and JavaScript;
- d.** Data and query languages including but not limited to Structured Query Language and all derivatives, variants, and dialects, whether standard or vendor-specific; and
- e.** Markup languages including but not limited to HTML, XML (including all derivatives, whether standard or custom, including but not limited to XHTML, XSL, XSLT, XPath, and XQuery).

11. “Communication” means and refers to any transmission of information, in any form, via any medium, including, without limitation, documents incorporating, summarizing or describing the contents of the transmission, meetings and discussions, telephone conversations, electronic communications, telegraphic communications, or any document containing a recording, transcription, summary or description or identifying the time, place, subject matter, medium of transmission and/or participants in the transmission.

12. “Patent” includes all U.S. patents and all foreign protection for intellectual property rights whether called a “Patent” or not.

13. “Patented Technology” means any alleged invention that is disclosed, described, or claimed in any of the Patents-in-Suit.

14. “Application” and “Applications” mean any and all patent applications that led to the issuance of the Patents-in-Suit, any continuations, continuations-in-part, divisionals, re-examinations, reissues, parents, foreign counterpart applications, and any other applications disclosing, describing, or claiming any alleged invention disclosed, described, or claimed in the Patents-in-Suit, whether or not abandoned and whether or not issued, or any application for a Patent or any Patent claiming priority to the filing date of any of the Patents-in-Suit.

15. “Prior Art” shall mean all documents, information, or acts that qualify as prior art under any section or subsection of 35 U.S.C. §§ 102 and 103, including without limitation printed patents, printed publications, posters, PowerPoint presentations, products, systems, prior inventions, on-sale bars, and any use, sale, or offer for sale before the actual filing date of the application that directly resulted in any Asserted Patent.

16. “Related Patent” or “Related Patents” shall include, whether or not abandoned and whether or not issued: (a) any patent or patent application that claims priority to the Asserted

Patent; (b) any patent or patent application that claims priority from any patent or patent application on which the Asserted Patent claims priority; (c) any patent or patent application on which the Asserted patent depends for priority; (d) any patent or patent application identified in the related U.S. Application for the Asserted Patent; (e) any patent or patent application that claims priority from any patent or patent application identified in the related U.S. Application for the Asserted Patent; (f) any reissue, reexamination, or inter partes review of any of the aforementioned patents or patent applications; and (g) any foreign counterpart patent or foreign counterpart application of any of the aforementioned patents or patent applications (a foreign counterpart patent and foreign counterpart application shall include any foreign patent or foreign patent application in which a claim for priority has been made in either a U.S. application or a foreign application based on the other, or that the disclosures of the U.S. and foreign patent applications are substantively identical).

17. “Entity” or “entities” means any legal person, corporation, company, partnership, sole proprietorship, firm, board, joint venture, association, organization, trust, governmental body, agency, authority, commission, or any other juristic person, business unit, or collective organization, and any legal, governmental, organizational, or political subdivision thereof.

18. “Person” or “persons” means any natural person, individual, group, or entity, including without limitation, partnerships, associations, groups, organizations, joint ventures, corporations, government agencies (federal, state, or local), and any other business or legal entities. The acts of a person shall include the acts of the person’s directors, officers, owners, members, employees, agents, attorneys, and all other representatives acting on the person’s behalf.

19. “Relating to,” “related to,” or “relate to,” when referring to any given subject matter, means without limitation any information, document, or thing that in whole or in part and

directly or indirectly relates to, concerns, regards, discusses, describes, depicts, demonstrates, shows, evidences, supports, refutes, contradicts, summarizes, analyzes, bears upon, comments upon, pertains to, constitutes, comprises, involves, contains, embodies, reflects, alludes to, identifies, states, mentions, refers to, deals with, or is in any way relevant to the particular subject matter identified.

20. “Including” shall mean “including without limitation” and “including but not limited to.”

21. “And,” “or,” and “and/or” shall be construed conjunctively or disjunctively, whichever maximizes the scope of each request in which they are used.

22. “Any” means “all” and/or “each” and vice versa, as necessary to bring within the scope of the request all information that might otherwise be construed to be outside the scope.

23. “Each” and “every” shall be construed to mean “each and every.”

24. Any pronoun shall be construed to refer to the masculine, feminine, or gender neutral as in each case is most appropriate.

25. The use of a verb in any tense shall be construed as the use of the verb in all other tenses.

26. The use of the singular form of any word includes the plural and vice versa.

27. Each request for documents seeks production of the document in its entirety, without abbreviation or expurgation, including all attachments, or other matters affixed thereto. To the extent documents are maintained in both hard copy and some other form, including but not limited to computer, electronic, magnetic and optical media of all kinds, please provide both forms.

28. The requests for documents seek any responsive document in the possession, custody, or control, no matter when the document was created.

29. Documents from any single file should be produced in the same order as they were found in such file. If copies of documents are produced, such copies should be legible and bound or stapled in the same manner as the original.

30. Documents produced in a form other than hard copy should be produced in the media in which they are found. Documents produced in any computer, electronic, magnetic or optical media should include a unique hard copy label containing an index of the materials and an identification of the format in which the documents are stored on such media.

31. If any document responsive to these requests has been destroyed, describe the content of said document, the location of any copies of said document, the date of such destruction and the name of the person who ordered or authorized such destruction.

32. If You object to any request or part thereof, please produce all documents to which such objection does not apply.

33. Whenever You claim that any document or thing responsive to any of the numbered requests below is privileged or immune from discovery as work product or unanswerable in full for any reason, You should answer the request to the extent that the document or thing is not withheld on such grounds and provide, within ten (10) days after objections based on privilege to the underlying requests are due, a list providing the number of the particular document or thing withheld, and the full identification of any withheld document, thing, or portions thereof including:

- (1)** its date;
- (2)** the author(s)/sender(s);
- (3)** the recipient(s), including copy recipient(s);
- (4)** the general subject matter of the document;

(5) the specific grounds for not answering in full, including the nature of the privilege (*e.g.*, attorney-client privilege, work product) or other rule of law relied upon to withhold the document or thing, and the facts supporting those grounds; and

(6) a certification that all elements of the claimed privilege have been met and not waived with respect to each document.

ATTACHMENT A.1

DEFINITIONS

The definitions set forth in Attachment A are incorporated by reference. The definitions apply to all instructions and requests regardless of whether upper- or lower-case letters are used.

INSTRUCTIONS

1. You must preserve and retain all documents, including electronic documents, and other information potentially responsive to any of these requests.

2. Whenever You claim that any document or thing responsive to any of the numbered requests below is privileged or immune from discovery as work product or unanswerable in full for any reason, You should answer the request to the extent that the document or thing is not withheld on such grounds and provide, within ten (10) days after objections based on privilege to the underlying requests are due, a list providing the number of the particular document or thing withheld, and the full identification of any withheld document, thing, or portions thereof including:

- a. its date;
- b. the author(s)/sender(s);
- c. the recipient(s), including copy recipient(s);
- d. the general subject matter of the document;
- e. the specific grounds for not answering in full, including the nature of the privilege (e.g., attorney-client privilege, work product) or other rule of law relied upon to withhold the document or thing, and the facts supporting those grounds; and

f. a certification that all elements of the claimed privilege have been met and not waived with respect to each document.

3. If you find the meaning of any term in these interrogatories unclear, then construe the term so as to render responsive any information, document, or thing that might otherwise be rendered non-responsive.

4. If any document responsive to these requests has been destroyed, describe the content of said document, the location of any copies of said document, the date of such destruction and the name of the person who ordered or authorized such destruction.

5. If You object to any request or part thereof, please produce all documents to which such objection does not apply.

DOCUMENT REQUESTS

REQUEST NO 1

All Documents, Source Code, and Things related to software programs, algorithms, architectures and concepts (and hardware and software modules Related to the implementation of said software programs, algorithms, architectures and concepts) as disclosed in The Parallel Computing Architecture Textbook, including, without limitation, “Parallelization of an Example Program,” “Equation Solver Kernel,” “Ocean,” and the “Message-Passing Model.”

REQUEST NO 2

All Documents, Source Code, and Things dated before January 1, 2008, relating to any of:

- Star-P/*P;
- the Fastest Fourier Transform in the West (“FFTW”);
- Microsoft Compute Cluster Server (“MCCS”);
- MultiMATLAB;
- Stony Brook GPU Cluster;
- Maple on the Intel Paragon;
- Distributed Maple; and
- PVMMaple.

ATTACHMENT A.2

DEFINITIONS

1. The definitions set forth in Attachment A are incorporated by reference.

TOPICS

TOPIC NO. 1

The functionality and design of the following from before January 1, 2008:

- Star-P/*P;
- the Fastest Fourier Transform in the West (“FFTW”);
- Microsoft Compute Cluster Server (“MCCS”);
- MultiMATLAB;
- Stony Brook GPU Cluster;
- Maple on the Intel Paragon;
- Distributed Maple; and
- PVM Maple.

TOPIC NO. 2

Software programs, algorithms, architectures and concepts (and hardware and software modules Related to the implementation of said software programs, algorithms, architectures and concepts) as disclosed in The Parallel Computing Architecture Textbook, including, without limitation, “Parallelization of an Example Program,” “Equation Solver Kernel,” “Ocean,” and the “Message-Passing Model.”

TOPIC NO. 3

Factual basis for statements made by you regarding SET and SEM in proceedings before the United States Patent and Trademark Office.